



Montana
Maternal, Infant, and Early
Childhood Home Visiting Project

April 14, 2011

Identifying at-risk communities



- Home visiting needs assessment
 - Submitted September of 2010
 - Identify communities with concentrations of selected indicators
- State plan
 - Due June 8, 2011
 - Identify targeted at-risk community(ies)

Identification of at-risk communities: Needs Assessment



- Communities defined as counties
- Identified counties with higher rates than state average for indicators
- Indicators weighted
- County “score” calculated based on weight of indicators for which the county had higher risk
- Population indicators score calculated to identify communities with concentrations of risk
- 34 of 56 counties identified as at risk

Community risk indicators



- Premature/preterm births
- Low birth weight births
- Infant mortality
- Under age 18 in poverty
- Crime rate
- School drop out rate
- Regional binge alcohol, marijuana, nonmedical prescription drug and high illicit drug use
- Unemployment
- Child abuse
- Domestic violence
- Teens smoking cigarettes
- Teens and binge alcohol use
- Smoking during pregnancy

Risk indicators: Data sources



Indicator	Years	Data source
% of live births that were premature/preterm births (<37 completed weeks)	2004-2008	Live birth records, Montana residents
% of live births that were low birth weight births (<2500 grams)	2004-2008	Live birth records, Montana residents
Infant mortality rate (deaths per 1,000 live births)	2004-2008	Live birth records and death records, Montana residents
% under 18 in poverty (below 100% of the federal poverty level)	2008	U.S. Census Bureau, vintage 2009
Crime rate (per 100.000 people)	2009	Montana Board of Crime Control
High school dropout rate (percent of high school students), 2007/2008	2007/2008	Montana Office of Public Instruction, via Kids Count Data Center
Regional substance use (binge alcohol, nonmedical use of prescription drugs, Marijuana, illicit drugs excluding Marijuana)	2006-2008	National Surveys on Drug Use and Health, Substance Abuse and Mental Health Services (SAMHSA)

Risk Indicators: Data sources



Indicator	Years	Data source
Unemployment rate (% unemployed)	2010 (July)	Montana Department of Labor and Industry, preliminary
Child abuse (substantiated) rate (per 10,000 children <18 years of age)	2010 (state fiscal year)	Child and Family Services Division, Montana Department of Public Health and Human Services and U.S. Census Estimates
Domestic violence rate (per 10,000 women 15-44 years of age)	2009	Montana Board of Crime Control and U.S. Census Bureau
% of teens reporting ever smoking cigarettes	2008	Montana Prevention Needs Assessment
% of teens reporting binge alcohol use	2008	Montana Prevention Needs Assessment
% of live births with reported maternal smoking during pregnancy	2005-2007	Live birth records, Montana residents

Indicator weights



Community risk indicator	Weight	Reasoning
Premature/preterm births	0.5	Related to low birth weight measure
Low birth weight births	0.5	Related to premature/preterm measure
Infant mortality	1	Distinct measure
Poverty	1	Distinct measure
Crime	1	Distinct measure
High school dropouts	1	Distinct measure
Within region of high binge alcohol use	0.25	Regional data, not county-level; multiple other substance use measures
Within region of high Marijuana use	0.25	Regional data, not county-level; multiple other substance use measures

Indicator weights



Community risk indicator	Weight	Reasoning
Within region of high nonmedical use of prescription drugs	0.25	Regional data, not county-level; multiple other substance use measures
Within region of high use of illicit drugs, excluding Marijuana	0.25	Regional data, not county-level; multiple other substance use measures
Unemployment	1	Distinct measure
Child maltreatment	1	Distinct measure
Domestic violence	1	Distinct measure
Teen smoking	0.5	Similar to teen binge alcohol use; multiple other substance use measures
Teen binge alcohol use	0.5	Similar to teen smoking; multiple other substance use measures
Smoking during pregnancy	1	Priority identified during 2010 Montana MCH needs assessment process; relates to health of women, infants, and young children

Population indicators



- Women of childbearing age (14-44 years)
- Children 0 through 5 years of age
- Fertility rate (births per females 15-44 years of age)
- Metropolitan or micropolitan area
(Yellowstone/Carbon, Cascade, Missoula, Gallatin, Silver Bow, Hill, Lewis and Clark/Jefferson, Flathead)

Population indicators: Data sources



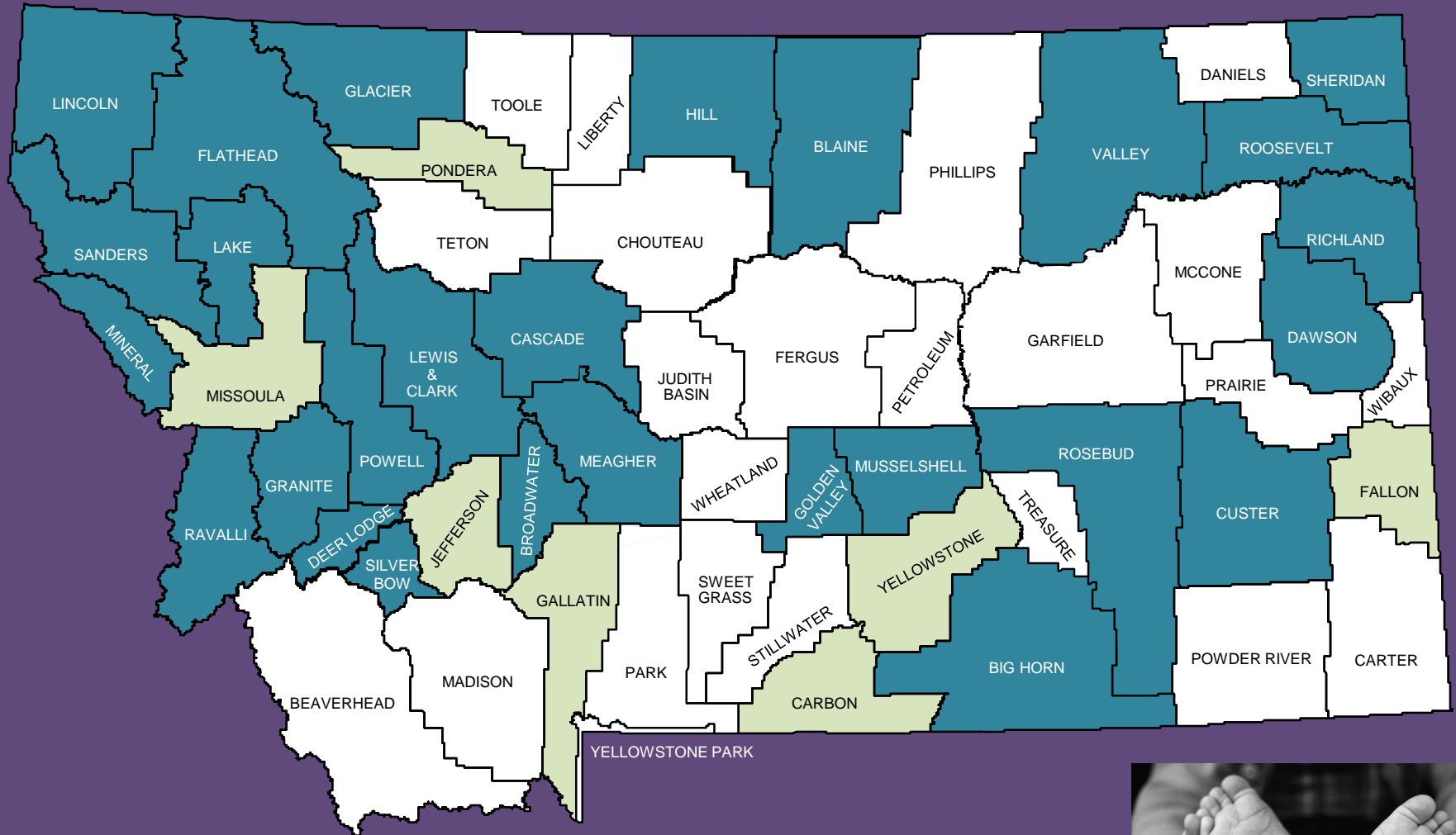
Indicator	Years	Data source
% of county population that is females 15-44 years of age	2008	U.S. Census Bureau
% of county population that is children 0 through 5 years of age	2008	U.S. Census Bureau
Fertility rate (live births per 1,000 females 15-44 years of age)	2008	Live birth records, Montana residents and U.S. Census Bureau
Metropolitan or micropolitan area	2009	U.S. Census Bureau

Population indicator weights



Indicator	Weight	Reasoning
Women of childbearing age	0.5	Indication of a population concentration; a proportion, not definitive.
Children 0 through 5	0.5	Indication of a population concentration; a proportion, not definitive.
Fertility rate	0.5	Indication of a population concentration; a proportion, not definitive.
Metropolitan or micropolitan area	1	Distinct measure

ACA MIECHV Home Visiting: At risk communities identified in needs assessment



- At risk based on indicators
- At risk based on indicators and population
- Not at risk



Identification of targeted at-risk communities: State plan



- Determining which community(ies) to target
- Identifying community needs
- Connecting community needs with models



Determining which community(ies) to
target

Community risk indicators included in supplemental information request														Additional community risk indicators			Population indicators				Risk assessment					
County	% of live births that were pre-mature/ preterm (before 37 weeks) 2004-2008	% of births that were low birth weight (<2500 grams), MT residents, 2004-2008	Infant mortality rate (per 1,000 live births), MT residents, 2004-2008	% under age 18 in poverty, 2008	Crime rate (per 100,000 people), 2009	School drop out rate (%), 2007/2008	Within region of high binge alcohol use in past month, 2007-2008	Within region of high Marijuana use within past month, 2007-2008	Within region of high nonmedical use of prescription drugs in past month, 2007-2008	Within region of high use of illicit drugs, excluding Marijuana, in past month, 2007-2008	Unemployment rate (% unemployed), 2010	Child abuse (substantiated) rate (per 10,000 children <18 years), 2010	Domestic violence rate (per 10,000 women 15-44 years of age), 2009	% of teens-reported ever smoking cigarettes, 2008	% of teens-reported binge alcohol use in last two weeks, 2008	% of live births with reported maternal smoking during pregnancy, 2003-2007	% of county population that is female 15-44 years, 2008	% of county population that is children 0 through 5 years, 2008	Fertility rate (per 1,000 females 15-44 years of age), 2008	Metro-politan or micropolitan area (according to U.S. Census Bureau definition), 2009	Maximum possible community risk indicator score	Community risk indicator score	% of total possible score	At risk based on community risk indicators (scored at least 38% of possible score)	Population indicators score	At risk based on community risk indicators (score of at least 1) and population indicators (score of at least 1)
Weight	0.5	0.5	1	1	1	1	0.25	0.25	0.25	0.25	1	1	1	0.5	0.5	1	0.5	0.5	0.5	1	-	-	-	-	-	-
Big Horn	8.1	6.3	8.9	32.3	1027	11.6	N	N	N	N	11.2	17	166	-	-	15.6	19.2	11.4	106.5	N	10	4	40.0	Y	1.5	Y
Blaine	10.1	8.5	13.5	33.2	734	6.1	N	N	N	N	5.2	16	150	61.9	31.2	23.5	17.4	10.0	99.1	N	11	6	54.5	Y	1	Y
Broadwater	9.1	10.0	9.6	16.9	2194	5.6	Y	Y	N	N	7.1	22	180	36.5	21.6	27.3	16.5	5.4	54.7	N	11	6	54.5	Y	0	Y
Carbon	7.1	6.5	2.3	15.6	1801	3.5	N	N	N	N	5.9	32	230	36.6	19.7	13.3	16.2	5.4	53.2	Y	11	1.5	13.6	N	1	Y
Cascade	9.7	7.9	5.3	19.6	3663	5.7	N	N	N	N	5.8	36	274	36.0	22.8	19.5	17.9	8.4	76.5	Y	11	6.5	59.1	Y	2	Y
Custer	9.0	9.0	4.2	21.6	3544	11.3	N	N	N	N	4.6	36	239	-	-	20.4	17.6	7.3	70.3	N	10	6	60.0	Y	0.5	Y
Dawson	7.1	6.5	6.1	15.6	2871	3.4	N	N	N	N	3.8	53	320	34.9	25.1	21.9	16.2	6.7	69.1	N	11	4.5	40.9	Y	0.5	Y
Deer Lodge	7.5	8.6	10.4	23.3	1959	6.9	Y	Y	N	N	7.8	80	210	39.0	30.2	31.4	16.7	5.2	51.1	N	11	8	72.7	Y	0	Y
Fallon	11.0	8.4	4.9	13.4	776	1.3	N	N	N	N	2.8	0	24	52.3	17.0	22.9	15.6	7.8	95.4	N	11	2.5	22.7	N	1	Y
Flathead	5.7	6.3	5.1	18.1	3561	6.2	Y	Y	Y	Y	10.8	54	224	33.9	23.1	17.1	18.6	8.0	71.6	Y	11	5	45.5	Y	2	Y
Gallatin	7.1	6.2	6.6	10.8	2499	3.6	Y	Y	N	N	6.6	12	114	22.1	17.2	9.1	22.2	8.1	60.5	Y	11	1.5	13.6	N	2	Y
Glacier	9.8	8.9	5.3	33.8	1165	7.4	N	N	N	N	10.9	5	229	64.3	27.7	19.9	19.7	10.9	96.7	N	11	6	54.5	Y	1.5	Y
Golden Valley	-	-	-	33.7	-	3.3	N	N	N	N	4.9	82	0	-	-	27.8	17.6	7.1	36.0	N	7	3	42.9	Y	0	Y
Granite	12.1	10.8	18.0	24.5	1916	2.7	Y	Y	N	N	8.8	39	155	26.0	22.4	9.5	16.0	5.0	47.5	N	11	5.5	50.0	Y	0	Y
Hill	6.5	5.9	6.4	24.5	4365	5.7	N	N	N	N	5.5	37	490	50.5	33.1	23.0	18.5	9.4	91.6	Y	11	7	63.6	Y	2	Y

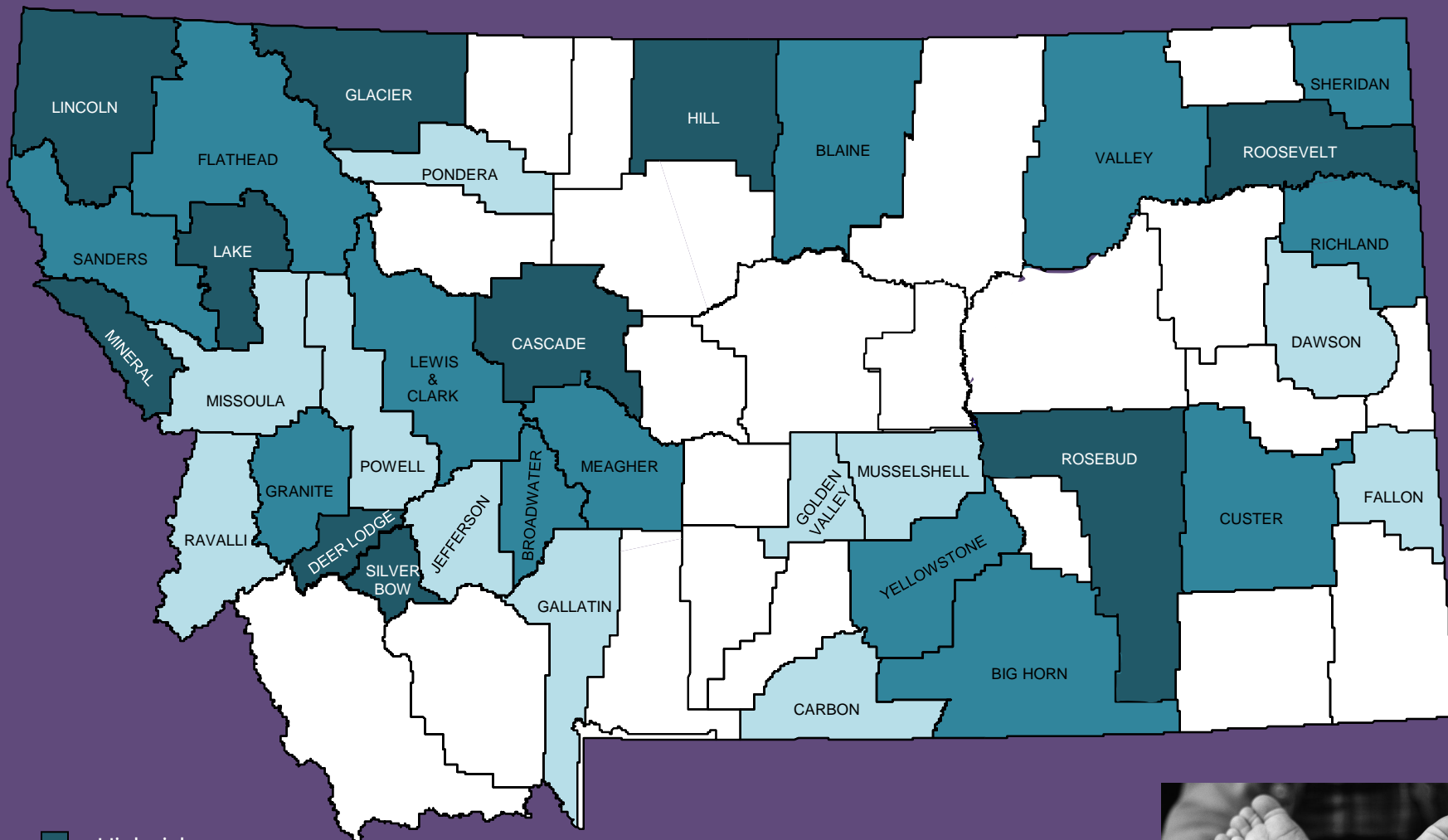
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Hill	6.5	5.9	6.4	24.5	4365	5.7	N	N	N	N	5.5	37	490	50.5	33.1	23.0	18.5	9.4	91.6	Y	11	7	63.6	Y	2	Y

Total at risk score



- Based on indicators score and population score
- Percent of total possible score for each county
- Counties ranked by score: 18 rankings
- Divided into thirds
 - High risk: 6 ranks, 10 counties
 - Medium risk: 6 ranks, 14 counties
 - Low risk: 6 ranks, 11 counties

ACA MIECHV Home Visiting: High, medium, and low risk communities



- High risk
- Medium risk
- Low risk
- Not at risk

3/10/11

Source: Family and Community Health Bureau, Maternal and Child Health Epidemiology Unit



High risk communities



County	% of total possible score	Rank	# of domains with high risk	Risk for majority of domains
Lake	74.1	1	6	High
Roosevelt	74.1	1	7	High
Hill	66.7	2	4	High
Silver Bow	66.7	2	6	High
Mineral	64.0	3	5	High
Cascade	63.0	4	1	Medium
Deer Lodge	59.3	5	5	High
Glacier	55.6	6	1	Medium
Lincoln	55.6	6	6	High
Rosebud	55.6	6	3	High/Medium

Medium risk communities



County	% of total possible score	Rank	# of domains with high risk	Risk for majority of domains
Custer	52.0	7	3	Medium
Blaine	51.9	8	1	Medium
Flathead	51.9	8	0	Low
Lewis & Clark	51.9	8	0	Medium
Sanders	48.1	9	5	High
Broadwater	44.4	10	1	Low
Big Horn	44.0	11	0	Medium
Meagher	44.0	11	1	Medium
Granite	40.7	12	1	Medium
Richland	40.7	12	0	Medium
Sheridan	40.7	12	1	Medium
Valley	40.7	12	3	High/Medium
Yellowstone	40.7	12	0	Low

Low risk communities



County	% of total possible score	Rank	# of domains with high risk	Risk for majority of domains
Dawson	37.0	13	0	Medium
Ravalli	37.0	13	1	Medium
Musselshell	33.3	14	0	Low
Powell	33.3	14	0	Low
Golden Valley	31.6	15	0	Medium
Missoula	29.6	16	0	Low
Pondera	29.6	16	0	Low
Fallon	25.9	17	0	Low
Gallatin	25.9	17	0	Low
Jefferson	25.9	17	0	Low
Carbon	18.5	18	0	Low



Evidence-based home visiting models

Evidence-based home visiting models



- Early Head Start-Home Based Option
- Family Check Up
- Healthy Families America
- Healthy Steps
- Home Instruction Program for Preschool Youngsters (HIPPY)
- Nurse Family Partnership
- Parents as Teachers

Identifying models for Montana



- Evidence of effectiveness in non-urban areas
- Required staffing credentials
- Type of implementing agency
- Targets young children under 3 and/or pregnant women
- Already have registered sites in Montana

Suggested models for Montana



- Early Head Start-Home Based Option
- Healthy Families America
- Nurse-Family Partnership
- Parents as Teachers

Early Head Start-Home-Based Option



- Focus: Child development and parenting support
- Target population: Low income pregnant women and families with children birth to 3; at or below federal poverty level.
- Enrollment timing: prenatal to 3
- Staff: Home visitor and director, early childhood background, no specific degrees required; model-specific training
- Caseload: Maximum 12 families per visitor
- Other: Affiliation with existing Head Start/Early Head Start Programs; current sites:
<http://www.headstartmt.org/Member-Agencies/members.htm>

Healthy Families America



- Focus: Child abuse and neglect and other adverse childhood experiences
- Target population: Identified by community; designed for families experiencing single parenthood, low income, substance abuse, mental health issues, domestic violence)
- Enrollment timing: Prenatally or within 3 months of child's birth
- Staff: 3 positions: family support workers (FSW), family assessment workers (FAW), program managers/supervisors, no specific degrees required; model-specific training
- Caseload: 15 families per FSW; less with longer travel distances

Nurse-Family Partnership



- Focus: Healthy pregnancy, knowledgeable and responsible parenthood, and personal growth and development
- Target population: First time, low income pregnant women and their children
- Enrollment timing: By the end of the 28th week of pregnancy
- Staff: Nurse home visitor(s), nursing supervisor (at least baccalaureate degree in nursing for both), administrative assistant; model-specific training
- Caseload: No more than 25 clients per visitor (less in rural areas); no more than 8 nurse-home visitor supervisees per supervisor
- Other: Recommended that nurse-supervisor has master's degree

Parents as Teachers



- Focus: Child development and school readiness and parenting support
- Target population: identified by community
- Enrollment timing: pregnancy through kindergarten entry
- Staff: parent educators and supervisors; model-specific training
- Caseload: part-time: 24 visits per month, full-time: 48 visits per month



Other models

Family Check-Up



- Evidence of effectiveness all in large urban areas
- Recommended educational level of parent consultants (master's or doctoral degree in psychology or related field); All sites with evidence of effectiveness used therapists as home visitors; all had doctorates or master's degrees.
- Implementing agencies: community mental health agencies, WIC, emergency room settings, and public schools
- Primarily target older children (2-17)

Healthy Steps



- Implementing agencies must be based in or linked to a primary health care practice and have a health care clinician involved.
- Requires lead physician or pediatric nurse practitioner (who see Healthy Steps families)
- Evidence of effectiveness all in large urban area

Home Instruction for Parents of Preschool Youngsters (HIPPY)



- Target older children (3 through 5)
- Populations where effective not similar to Montana's (primarily African American or Hispanic)
- No evidence of effectiveness in rural areas

Community considerations



- Community maternal, infant, and early childhood needs
- Community strengths
- Community size and demographics (incomes, ages of mothers, educational level, etc.)
- Community input
- Existing resources and infrastructure
- Workforce
- Recruitment of participants
- Collaboration opportunities
- Fidelity to model

Scenarios



- **Community A**
 - Needs: Child health, maternal health, family economics, parenting practices, child maltreatment
 - 380 live births
 - 900 children ages 1-2
 - Difficulty recruiting and retaining staff with nursing credentials
 - Existing Head Start Program; few other early childhood service providers
 - Community priority to provide support for positive parenting practices
- **Community B**
 - Needs: Maternal health, child health, child development and school readiness, parenting practices
 - 750 live births
 - 1500 children age 1-2
 - Difficulty getting referrals during pregnancy
 - Low educational level in community
 - Community priority to strengthen coordination of early childhood services

Model information



- Home Visiting Evidence of Effectiveness website:
<http://homvee.acf.hhs.gov/Default.asp> (“Models” and “Implementation” sections)
- Model-specific websites and model developers
(contact information available on websites for via the HOMVEE website above)
- Evidence-based model matrix
(<http://www.dphhs.mt.gov/PHSD/family-health/ACAHomeVisitingGrantInformation.shtml>)



Identifying community needs

Domains



- Identifies risk associated with a particular area of focus
- Based on more than one indicator
- Used to categorize evidence of effectiveness for models (<http://homvee.acf.hhs.gov/>)
- Can be linked to required benchmarks

Domains



- Child health
- Maternal health
- Child development and school readiness
- Family economic self-sufficiency
- Linkages and referrals
- Parenting practices
- Child maltreatment
- Juvenile delinquency, family violence, and crime

	Community risk indicators included in supplemental information request										Additional community risk indicators		
	Premature /Preterm birth	Low birth weight	Infant mortality	Under age 18 in poverty	Crime	School drop out rate	High binge alcohol/Marijuana/nonmedical prescription drug/illicit drug use - Region	Unemployment	Child abuse	Domestic violence	Smoking among teens	Binge alcohol use among teens	Smoking during pregnancy
Child health	X	X	X	X			X	X	X	X	X	X	X
Maternal health	X	X	X	X		X	X	X		X	X	X	X
Child development and school readiness				X					X	X			
Family economic self-sufficiency				X		X		X		X			
Linkages and referrals													
Parenting practices				X		X	X		X	X	X	X	X
Child maltreatment			X	X			X		X	X			
Juvenile delinquency, family violence, and crime				X	X	X	X		X	X	X	X	



Connecting community needs with
models

ACA Home Visiting: Evidence-based models by domain

	Child health	Maternal health	Child development and school readiness	Family economic self-sufficiency	Linkages and referrals	Parenting practices	Child maltreatment	Juvenile delinquency, family violence, and crime
Early Head Start-Home Visiting			P & S	S		P & S		
Family Check Up		S	P			P		
Healthy Families America	P & S		P	S	P	P & S	S	S
Healthy Steps	P		P (certain populations)			S		
Home Instruction Program for Preschool Youngsters (HIPPY)			P & S			P & S		
Nurse Family Partnership	P & S	P & S	P & S	P & S		P & S	P	S
Parents as Teachers			P			P		

P = Effectiveness shown in primary outcome

S = Effectiveness shown in secondary outcome

Source: U.S. Department of Health and Human Services Home Visiting Evidence of Effectiveness website (<http://homvee.acf.hhs.gov/>)